

PDO_Objects.txt

5 steps

1. disable the PDO
2. Clear the PDO count
3. add the PDO object number
4. update the total number of mapped objects
5. re-enable the PDO?

RxPDO1 1400 PDO Communication

601 23 00 14 01 01 02 00 00 - RPDO1 set to drive address 1 (COB-ID 201)

RxPDO1 1600 Mapping SDO

601 2F 00 16 00 00 00 00 01 - delete RxPDO1 mapping
601 23 00 16 01 20 00 FF 60 - map profile velocity command
601 2F 00 16 00 01 00 00 00 - one mapping entry

601 23 01 14 01 01 03 00 00 - RPDO2 set to drive address 1 (COB-ID 301)

RxPDO2 1601 Mapping SDO

601 2F 01 16 00 00 00 00 01 - delete RxPDO2 mapping
601 2F 02 16 00 00 00 00 01 - delete RxPDO3 mapping
601 2F 03 16 00 00 00 00 01 - delete RxPDO4 mapping

TxPDO1 1800 Communication Node

Configure Obj 1800 sub 01 to map the TxPDO1 to a COB ID

Such as, $180 + \text{Node ID} = 180+1 = 181$

601 23 00 18 01 81 01 00 40 (the 40 is to set bit 30)

Configure Obj 1800 sub 02 to set when PDO is transmitted.

FF - transmit on every change of data
01 - transmit on every SYNC command (COB ID 080)
02 - transmit on every second SYNC

Configure Obj 1800 Sub 03 and Sub 05 for timing.

601 23 00 18 01 81 01 00 40
601 40 00 18 01 -read

601 2F 00 18 02 FF 00 00 00 - event triggered on change of mapped parameter
601 2F 00 18 02 01 00 00 00 - SYNC triggered on every SYNC
601 2B 00 18 03 0A 00 00 00 - set minimum time =10
601 2B 00 18 05 0A 00 00 00 - set max time =10

TxPDO1 1A00 Mapping SDO's

601 2F 00 1A 00 00 00 00 01 Delete all mappings
601 23 00 1A 01 20 00 6C 60 -velocity actual
601 40 00 1A 01 -read
601 40 00 1A 00 -read number of mapped objects
It will only take up to 2 objects.

601 23 01 14 01 01 03 00 00 - RPDO2 set to drive address 1 (COB-ID 301)

RxPDO2 1601 Mapping SDO

601 2F 01 16 00 00 00 00 01 - delete RxPDO2 mapping

PDO_Objects.txt

TxPDO2 1801 Communication Node
601 23 01 18 01 81 02 00 40
601 40 01 18 01 -read

601 23 01 18 02 FF 00 00 00 - event triggered on change of mapped parameter
601 23 01 18 02 01 00 00 00 - SYNC triggered on every SYNC
601 23 01 18 03 0A 00 00 00 - set minimum time =10
601 23 01 18 05 0A 00 00 00 - set max time =10

TxPDO2 1A01 Mapping SDO's
601 2F 01 1A 00 00 00 00 01 Delete all mappings
601 23 01 1A 01 08 00 61 60 -opmode
601 40 01 1A 01 -read
601 23 01 1A 02 10 00 41 60 -status word
601 40 01 1A 02 -read
601 23 01 1A 03 20 00 64 60 -position actual (position units)
601 40 01 1A 03 -read
601 40 01 1A 00 -read number of mapped objects
It will only take up to 3 objects.

TxPDO3 1802 Communication Node
601 23 02 18 01 81 03 00 40
601 40 02 18 01 -read

TxPDO3 1A02 Mapping SDO's
601 2F 02 1A 00 00 00 00 01 Delete all mappings
601 23 02 1A 01 10 00 77 60 -torque actual
601 40 02 1A 01 -read
601 23 02 1A 02 20 00 7A 60 -target position (O_P)
601 40 02 1A 02 -read
601 23 02 1A 03 20 00 81 60 -profile velocity (O_V)
601 40 02 1A 03 -read
601 23 02 1A 04 20 00 85 60 -quick stop dec (decstop)
601 40 02 1A 04 -read
601 40 02 1A 00 -read number of mapped objects

TxPDO4 1803 Communication Node
601 23 03 18 01 81 04 00 40
601 40 03 18 01 -read

TxPDO4 1A03 Mapping SDO's
601 2F 03 1A 00 00 00 00 01 Delete all mappings
601 23 03 1A 01 10 00 77 60 -torque actual
601 40 03 1A 01 -read
601 23 03 1A 02 20 00 7A 60 -target position (O_P)
601 40 03 1A 02 -read
601 23 03 1A 03 20 00 81 60 -profile velocity (O_V)
601 40 03 1A 03 -read
601 23 03 1A 04 20 00 85 60 -quick stop dec (decstop)
601 40 03 1A 04 -read
601 40 03 1A 00 -read number of mapped objects

000 01 01 - enable NMT
080 - SYNC command for use when transmitting PDO's on the SYNC command.